Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 2013 vol.8218 LNCS NPART 1, pages 379-394

Bringing math to LOD: A semantic publishing platform prototype for scientific collections in mathematics

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Abstract

We present our work on developing a software platform for mining mathematical scholarly papers to obtain a Linked Data representation. Currently, the Linking Open Data (LOD) cloud lacks up-to-date and detailed information on professional level mathematics. To our mind, the main reason for that is the absence of appropriate tools that could analyze the underlying semantics in mathematical papers and effectively build their consolidated representation. We have developed a holistic approach to analysis of mathematical documents, including ontology based extraction, conversion of the article body as well as its metadata into RDF, integration with some existing LOD data sets, and semantic search. We argue that the platform may be helpful for enriching user experience on modern online scientific collections. © 2013 Springer-Verlag.

http://dx.doi.org/10.1007/978-3-642-41335-3_24

Keywords

Linked Data, Ontology Engineering, Ontology Extraction